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Serial no. 09/921,841
Filed 8/2/2001
Attorney docket no. BEA920010012US1

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REMARKS

Note regarding request for prior art

In response to the Examiner's request for any references known to qualify as prior art, Applicant responds that all the prior art that is known has already been submitted in relation to the Form 1449 filed with the patent application.

Amendments to claims

Claims 1, 9, 10, 15, and 18-20 have been amended; the other claims remain in their original form. Claims 1, 10, and 18 have been amended so that, in the case of claim 1, the method is performed "without rebooting of any of the at least one other node," and in the case of claims 10 and 18, the functionality does "not result[] in rebooting of any of the plurality of nodes." Support for this amendment is found in the patent application as filed at least at: page 5, para. 24 ("preferably without rebooting"); page 11, para. 43 ("the invention provides for such functionality to be performed . . . without rebooting"); and, page 2, para. 10 (describes that the prior art "requires the rebooting of a node"). Thus, the patent application results in the functionality/method being performed without rebooting any of the nodes.

Claims 9, 15, and 20 have been amended so that the private memory of each node comprises "*non-firmware* private memory." Support for this amendment is found in the patent application as filed at least at: page 8, para. 33 (in which the functionality related to private memory may be, besides the updating of firmware, "the retrieval of diagnostic information" or "another type of functionality related to private memory"); and, pages 1-2, para. 7 (in which private memory can include "flash memory, expansion read-only memory, and the memory where error logs and other node-specific information is stored" and where firmware for a node is "*also* usually stored in the private memory of the node"). Thus, the patent application recites various

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different kinds of private memory, besides firmware, and claims 9, 15, and 20 limit the private memory to being *non-firmware* private memory.

Claim 19 has been amended to incorporate both the limitations of claims 19 and 20 as originally filed in the alternative, and also to correct a typographical error. As filed, claim 19 recited the means being a recordable data storage medium and claim 20 recited the means as being a modulated carrier signal. However, Applicant intended for the *medium*, not the *means* to be a recordable data storage medium or a modulated carrier signal, as indicated in the specification on page 5, para. 25 ("The computer-readable medium may itself be a recordable data storage medium, . . . a modulated carrier signal, or another type of computer-readable medium."). Claim 19 as has been amended now limits the medium to being "one of" a recordable data storage medium and a modulated carrier signal, hence incorporating the limitations of claims 19 and 20 as originally filed in the alternative.

Claim rejections under 35 USC 103(a)

Claims 1-20 have been rejected under 35 USC 103(a) as being unpatentable over EFI Application Toolkit Protocol Specification (hereinafter, "EFI"), in view of Goodman (2002/0091807). Applicant respectfully traverses the rejection as to the claims, as amended. Applicant now discusses the claims in detail as follows: claims 1-20, with respect to the independent claims in particular; and, claims 9, 15, and 20, with respect to non-firmware private memory.

Claims 1-20

Of claims 1-20, claims 1, 10, and 18 are independent claims from which the remaining pending claims ultimately depend. Claims 1, 10, and 18 as amended are limited to, in the case of claim 1, the method being performed "without rebooting" of any node, and, in the case of claims 10 and 18, the functionality not resulting in "rebooting" of any node. Furthermore, claims 1, 10,

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and 18 as originally filed recite, in the case of claim 1, a “process” being started on the non-base nodes, and in the case of claims 10 and 18, “processes” performed on nodes that are governed by the base node (claim 10) or the means (claim 18). Applicant asserts that these limitations are not found in EFI in view of Goodman, such that independent claims 1, 10, and 18, and all the other claims that ultimately depend therefrom, are patentable.

No rebooting limitation

First, with respect to the claims as amended requiring that rebooting *not* be performed or result, Applicant notes that EFI in view of Goodman *requires* rebooting of nodes be performed or result. The claimed invention relates to accessing private memory without such rebooting being performed or resulting. Thus, because the Goodman reference is that which is relied upon for accessing private memory, it is controlling as to whether rebooting is performed or results in the combination EFI in view of Goodman. And Goodman requires rebooting. For instance, in paragraph [0027], Goodman states that “the updated nodes reset themselves and the new firmware image is activated,” and in paragraph [0029], “the remaining nodes are then reset through a remote reset or reboot message.” Applicant contends that rebooting and resetting are synonymous, such that that Goodman, and thus EFI in view of Goodman, requires rebooting being performed or resulting, in contradistinction to the claimed invention.

Applicant further notes that the requirement of such rebooting is a stated disadvantage of the prior art in the patent application as filed. For example, on page 2, para. 10, the patent application, in discussing the prior art, notes that “this approach is indirect, and requires the rebooting of a node.” As such, “performing diagnostic and update-oriented functionality can still be inconvenient and time-consuming for the system administrator.” (Id.) The patent application as filed further notes that an advantage of the invention is that rebooting is not required. “Where the prior art only allows such private memory-accessing functionality to be performed on a system-wide basis with the rebooting of all the nodes, the invention provides for such functionality

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to be performed on a system-wide basis without rebooting.” (P. 11, para. 43) Thus, EFI in view of Goodman as a combination is another example of the type of prior art over which the claimed invention provides advantages.

Finally, Applicant submits that modifying EFI in view of Goodman so that rebooting is not performed or does not result is an improper modification of Goodman in particular, under 35 USC 103(a). The functionality of Goodman is to store a new image for its firmware, as received from a base node, and then to reboot, so that the firmware can be activated with that new image. (See, e.g., paras. [0027] and [0029]) If rebooting is not performed, then this functionality of Goodman is frustrated, rendering Goodman unsuitable for its purpose. As a result, such a modification cannot be made, in accordance with the MPEP, which states that “the proposed modification cannot render the prior art unsatisfactory for its intended purpose.” (MPEP 2143.01) That is, “[i]f [the] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” (Id., citing *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984)) Furthermore, “the proposed modification cannot change the principle of operation of a reference.” (MPEP 2143.01) That is, “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the reference are not sufficient to render the claims *prima facie* obvious.” (Id., citing *In re Ratti*, 270 F.2d 810 (CCPA 1959))

Processes limitation

Second, with respect to the claims as originally filed requiring that a process be started or governed on the non-base nodes, Applicant submits that EFI in view of Goodman do not disclose such a process. The Examiner specifically relies upon EFI, indicating in paragraph 4 of the Office Action that “the claimed function ‘instructing . . . to start a process’ corresponds to the function startprocessor() (page 4-11).” Applicant disagrees. The StartProcessor() function relates to

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starting execution of an “AP” itself, where an AP is defined as a “non-boot processor[.]” (See the bottom of page 3-3) That is, the StartProcessor() function does not start a *process* at a node, but starts the *processor* itself of a node. This is further buttressed by the fact that the status codes that can be returned in relation to the StartProcessor() function all have to do with whether the *processor* was successfully started, not whether a process was successfully started. For instance, these status codes include “processor successfully started,” “application processor is running,” and “processor not successfully started,” and do not have anything to do with a *process* (as opposed to a *processor*) being started. For this reason, too, EFI in view of Goodman does not render claims 1-20 non-patentable.

Claims 9, 15, and 20

Claims 9, 15, and 20 are dependent claims, and as amended are independently and separately patentable over EFI in view of Goodman. Claims 9, 15, and 20 as amended are limited to the “private memory” being “*non-firmware* private memory.” The Goodman reference in particular is relied upon for recitation of private memory in the prior art, such that it is controlling as to the type of private memory that is taught by the combination EFI in view of Goodman. And Goodman is limited to a single type of private memory, firmware private memory, be it implemented as a programmable read-only memory (PROM), or another type of physical memory (i.e., firmware relates to the function of the memory, not the physical type of memory, such as PROM, EEPROM, and so on). For instance, in paragraph [0002], the field of the invention, Goodman notes that “the present invention relates to . . . maintaining proper firmware levels in the nodes of a system.” Furthermore, in paragraph [008], the summary of the preferred embodiments, Goodman notes that “[p]rovided is a method, system, and program for updating the firmware in a nodal system.” Applicant thus submits that Goodman, and therefore EFI in view of Goodman, relates only to private memory that has the functionality of firmware, and not to private memory that has non-firmware functionality, in contradistinction to the claims.

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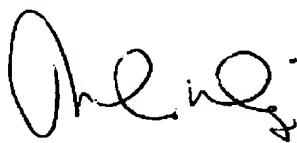
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Applicant also contends that there is no motivation within the cited prior art to modify Goodman, and thus EFI in view of Goodman, to pertain to private memory having functionality other than firmware functionality. Goodman is narrowly directed to "automatic firmware update," as indeed its title states. There is nothing in Goodman that suggests its manner of accessing private memory is applicable to other types of private memory, since Goodman is only concerned with updating one particular type of private memory, that which has to do with firmware functionality. For these reasons, claims 9, 15, and 20 are independently patentable over EFI in view of Goodman.

Conclusion

Applicants have made a diligent effort to place the pending claims in condition for allowance, and request that they so be allowed. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Applicants' Attorney so that such issues may be resolved as expeditiously as possible. For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



Michael A. Dryja, Reg. No. 39,662
Attorney/Agent for Applicant(s)

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Law Offices of Michael Dryja
704 228th Ave NE #694
Sammamish, WA 98074
tel: 425-427-5094
fax: 206-374-2819